

MAP OF THE SOUTH POLE STATION AND ATTACHED SCIENCE INSTRUMENTS



CLEAN AIR SECTOR

An area that is kept free of atmospheric pollutants, such as vehicle exhaust, for purposes of atmospheric studies.

ARO (Atmospheric Research Observatory)

ARO investigates the atmosphere, the ozone layer, global climate change and how the atmosphere reacts to solar phenomena.

QUIET SECTOR

This area is kept free of vibrations that could interfere with seismic observations of events such as earthquakes around the globe.

SPRESO (South Pole Remote Earth Science Observatory)

Exploiting the fact that Antarctica is one of the quietest places on Earth, this facility records shudders produced by earthquakes around the world as they vibrate through the planet.

STATION

This serves as quarters to all staff and researchers.

SkyLab

Instruments here conducted auroral observations. This building has been decommissioned.

NSF Amundsen-Scott South Pole Station

This station was built in 1975 to replace the first permanent station at the pole, which was erected in the late 1950s as part of the International Geophysical Year.

New Amundsen-Scott South Pole Station

This station dedicated in 2007 is an elevated building. It houses a science lab. Several projects in this lab listen to different wave frequencies for insights on auroral phenomena and our ionosphere. Another project examines cosmic rays and the sunspot cycle.

Altie Meadows Summer Camp

A cluster of heated Korean War-era Jamesway tents can house up to 80 people in the austral summer.

Skiway

The facility continuously maintains a runway of packed snow for ski-equipped aircraft carrying passengers and cargo.

GEOS-3/ MARISAT Radar and Radio Frequency Building

Houses satellite communications and a meteor radar facility operated by the University of Colorado at Boulder.

PAX Terminal

Personnel transferring into and out of Amundsen-Scott Station transit through the PAX (jargon for "passenger") terminal.

DARK SECTOR

This area is kept clear of sources of interference with electromagnetic signals that could hamper radio telescopes.

MAPO (Martin A. Pomerantz Observatory)

MAPO is the central facility for maintenance and operation of South Pole observing systems such as telescopes and detectors.

QUAD

QUAD, an upgrade to a Cosmic Microwave Background imager called DASI, studies the CMB radiation for clues to the nature and evolution of the early universe.

Viper

This telescope has been decommissioned and is being dismantled.

SPASE-2

SPASE-2 is a cosmic ray detector array. It operates in conjunction with the neutrino telescope and the VULCAN atmospheric detection array.

Dark Sector Lab

A 10-meter telescope, the newest addition to this complex. surveys galaxy clusters and measures cosmic microwave background radiation.

BICEP (Background Imaging of Cosmic Extragalactic Polarization)

BICEP is an experiment designed to measure the polarization of the Cosmic Microwave Background radiation to unprecedented precision, and in turn answer crucial questions about the beginnings of the universe.

SPT (South Pole Telescope)

Currently under construction, this 10 meter telescope is designed to study phenomena such as the formation and evolution of the early universe and the formation and evolution of solar systems like our own.

ICE CUBE

The IceCube detector array, which will eventually occupy a volume of one cubic kilometer, records the signatures of neutrinos arriving from the depths of space, where they originate in violent events such as the collision of galaxies or black holes.

IceCube Lab

IceCube is a telescope designed to detect subatomic particles called neutrinos that originate in far space and pass through the Earth, infrequently interacting with the Antarctic ice.

DOWNWIND SECTOR

The prevailing wind blows through this sector.

